



water

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Modelling Precipitation in Space and Time

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Deadline for manuscript
submissions:

closed (31 August 2021)

Message from the Guest Editor

Modeling precipitation in space and time over specified areas, such as a hydrological catchment or a grid-cell of various climatic, hydrologic, and ecological models is of great interest. In modeling precipitation, the key issue is the choice of an interpolation approach. In areas with low relief, even distribution of rain gauges and abundant data, most interpolation techniques give similar results. Unfortunately, such conditions are rarely met, and when data are sparse, especially in mountainous areas, the implicit or explicit underlying assumptions about the variation among measured points may differ significantly even at relatively reduced scales. Moreover, modeling precipitation enables making inferences about the knowledge of the precipitation process, and caution is required in using information on precipitation relying only on statistical relationships.

Potential topics include but are not limited to the following:

- Interpolating precipitation in space, in time, and in space and time;
- Methods for quantifying uncertainty;
- Accounting for missing data in precipitation series;
- Using environmental covariates to improve precipitation modeling.



mdpi.com/si/30237

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Message from the Editor-in-Chief

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